

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



TCEQ DOCKET NO. 2011-1814-UIC

**APPLICATION BY EL PASO WATER
UTILITIES FOR AN AQUIFER
EXEMPTION**

§
§
§

**BEFORE THE
TEXAS COMMISSION ON
ENVIRONMENTAL QUALITY**

AQUIFER EXEMPTION ORDER

The Texas Commission on Environmental Quality (TCEQ) finds that:

1. On August 21, 2008, El Paso Water Utilities (EPWU) submitted an application to request designation of an exempted aquifer under 30 TAC Section 331.13.
2. The aquifer requested to be exempted consists of a portion of the Fusselman Formation, Montoya Group, and El Paso Group (hereinafter referred to as the Fusselman, Montoya, and El Paso group) with a combined thickness of approximately 2,480 feet and a top ranging from approximately 1,000 to 4,000 feet below ground as depicted in Figure 18 of the application providing a structure map on the top of the Fusselman. The area of the proposed exempt aquifer is a rectangle of approximately 115 square miles, extending approximately 19.2 miles from north to south and 5.98 miles from east to west and is located in El Paso County. The northwest corner of the proposed exempt aquifer is located at latitude 32° 00' 13.38" N, longitude 106° 11' 49.28" W; the southwest corner is located at latitude 31° 43' 30.00" N, longitude 106° 11' 49.28" W; the southeast corner at latitude 31° 43' 30.00" N, longitude 106° 05' 42.12" W; and the northeast corner at latitude 32° 00' 12.74" N, longitude 106° 05' 42.12" W. Maps depicting the exempted aquifer area are attached.
3. The groundwater in the portion of the Fusselman, Montoya, and El Paso group described in Finding #2 contains a concentration of up to 8,800 mg/l total dissolved solids (TDS). Because the groundwater TDS concentration is less than 10,000 mg/l, according to 30 TEX. ADMIN. CODE §§ 331.2 and 331.13, this portion of the Fusselman, Montoya, and El Paso group is considered an underground source of drinking water unless it is designated an exempted aquifer.
4. EPWU currently operates a groundwater desalination plant for public water supply, with injection wells for safe management and disposal of the resulting desalination concentrate wastewater. EPWU requests the designation of the exempted aquifer in conjunction with the use of injection wells authorized under TCEQ Authorization No. 5X2700062 for injection of desalination concentrate that does not meet all primary and secondary drinking water standards.
5. The Class V injection wells associated with the proposed aquifer exemption were authorized by TCEQ on July 13, 2005 and are located on Fort Bliss Military Reservation approximately twelve miles north of State Highway 180 and 22 miles northeast of the Kay Bailey Hutchinson Desalination Plant in El Paso County, Texas. The Class V injection wells are located as follows: the well designated as JDF-1 at latitude 31° 59' 49" N, longitude 106° 06' 25" W; the well designated as JDF-2 at latitude 31° 58' 24" N, longitude 106° 06' 30" W; the

well designated as JDF-3 at latitude 31° 59' 15" N, longitude 106° 06' 43" W; the well designated as JDF-4 at latitude 31° 59' 55" N, longitude 106° 07' 45" W; and the well designated as JDF-5 at latitude 31° 59' 13" N, longitude 106° 06' 05" W.

6. An exempted aquifer is an aquifer or a portion of an aquifer which meets the criteria for fresh water but has been designated an exempted aquifer by the commission after notice and opportunity for hearing.
7. An aquifer or portion of an aquifer may be designated as an exempted aquifer if the following criteria are met:
 - (1) It does not currently serve as a source of drinking water for human consumption; and
 - (2) Until exempt status is removed according to 30 TAC §331.13(f), it will not in the future serve as a source for human consumption because:
 - (A) It is mineral, hydrocarbon or geothermal energy bearing with production capability;
 - (B) It is situated at a depth or location which makes recovery of water for drinking water purposes economically or technically impractical;
 - (C) It is so contaminated that it would be economically or technologically impractical to render that water fit for human consumption; or,
 - (D) It is located above a Class III well mining area subject to subsidence or catastrophic collapse.
8. EPWU has demonstrated that the portion of the Fusselman, Montoya, and El Paso group described in Finding #2 is not currently, nor has ever been, a source of drinking water for human consumption by conducting a data search and a ground investigation that showed that there are no water wells that withdraw water used for human consumption within the exempted aquifer.
9. EPWU has demonstrated that the portion of the Fusselman, Montoya, and El Paso group described in Finding #2 is situated at a depth (1,000 to 4,000 feet at top) which makes recovery of water for drinking water purposes economically or technically impractical.
10. The TCEQ also notes that water samples taken from the Fusselman, Montoya, and El Paso group exhibit a high concentration of certain radionuclides (gross alpha and radium 226 & 228).
11. Notice of the aquifer exemption was issued June 7, 2011, published in the *El Paso Times* on June 21, 28 and July 5, 2011 and *El Diario* on June 21, 28, and July 5, 2011, and mailed to the same recipients required for notice of an injection well permit application.
12. The notice described the process for submitting comments and requesting a hearing on the aquifer exemption.
13. A public meeting was held on Thursday, July 14, 2011, 7:00 p.m., at Tech H2O Center, 10751 Montana Ave., El Paso, Texas 79935.

14. The Executive Director of the Texas Commission on Environmental Quality provided a response to all timely, relevant and material, or significant public comments on the application.

Now, therefore, be it ordered by the Texas Commission on Environmental Quality that:

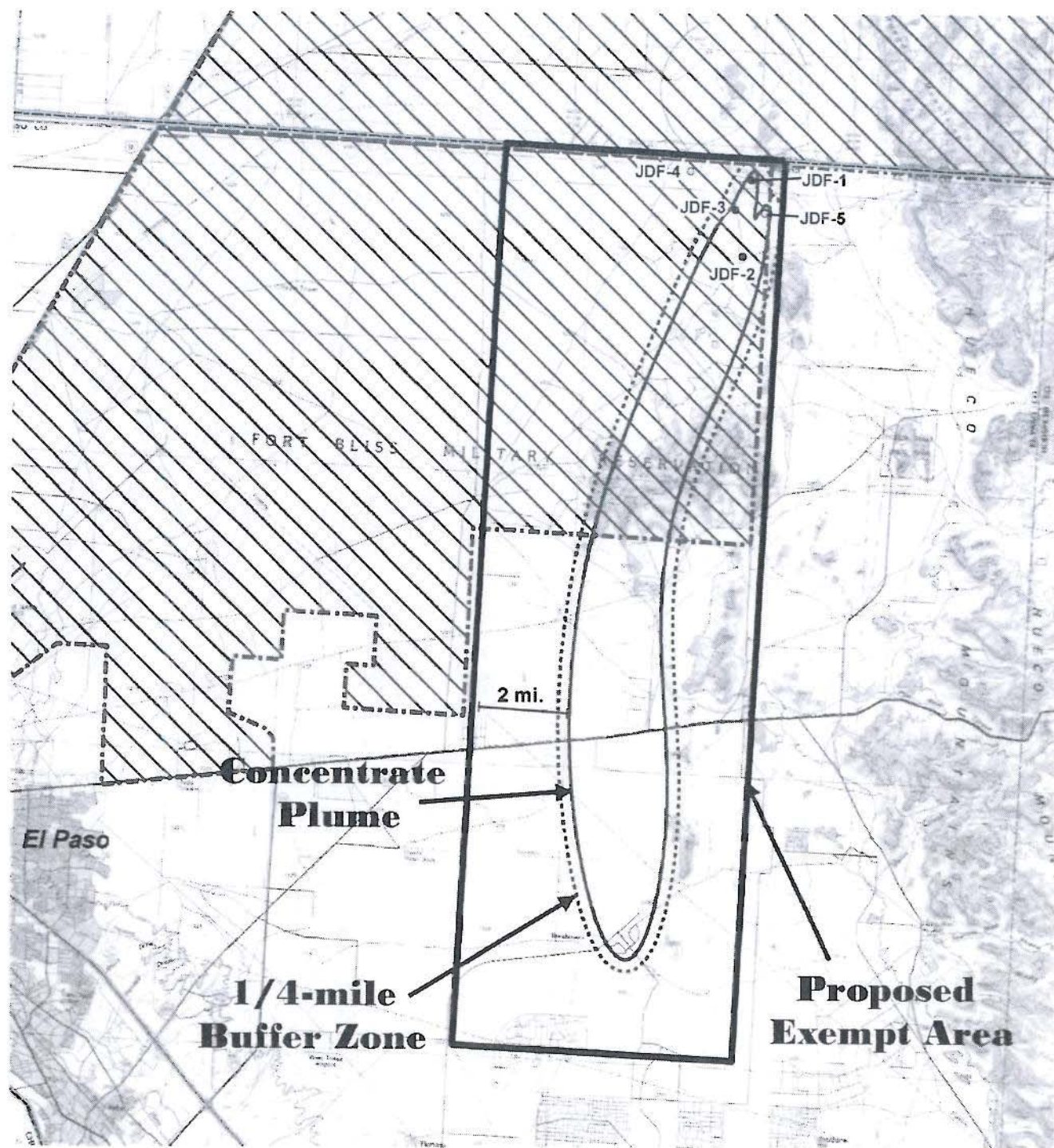
1. The portion of the Fusselman, Montoya, and El Paso group described in Finding #2 be designated as an exempted aquifer under 30 TAC § 331.13(c);
2. The Executive Director of the Texas Commission on Environmental Quality submit a program revision to the United States Environmental Protection Agency (EPA) under 40 CFR §§ 144.7, 146.4, and 145.32 to reflect this aquifer exemption designation for the Underground Injection Control program for the State of Texas; and
3. No designation of an exempted aquifer shall be final until approved by the EPA as part of the delegated Underground Injection Control Program.

Issue Date: **DEC 15 2011**

Texas Commission on
Environmental Quality

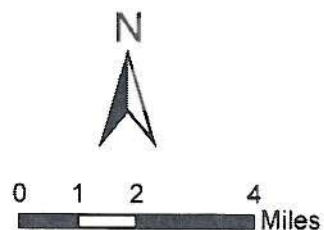


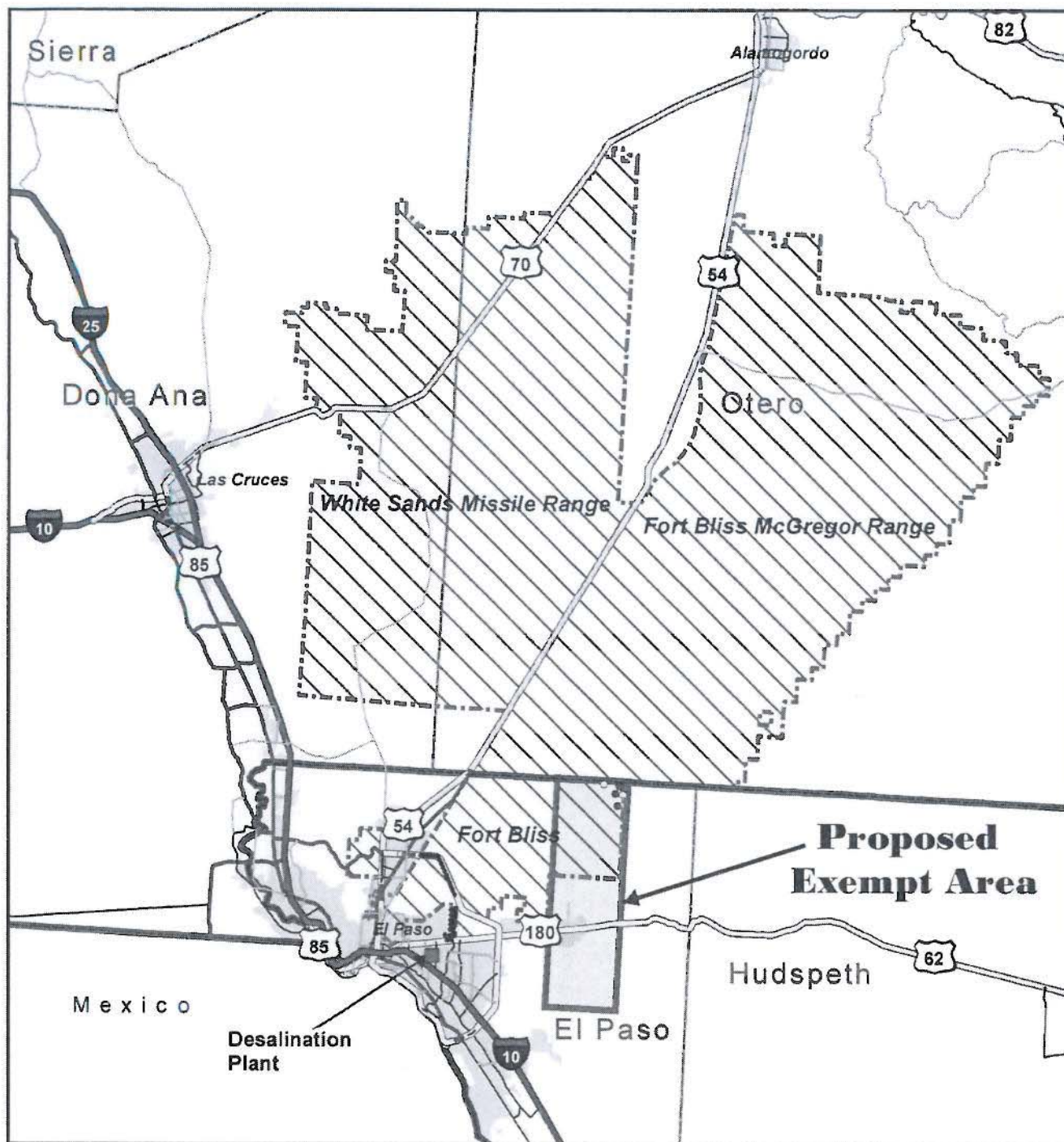
Bryan W. Shaw, Ph.D.
Chairman







Explanation

- Class V Injection Wells
- Authorized Injection Wells
- State Boundary
- Fort Bliss
- Proposed Exempt Area
- Concentrate Plume
- One-Quarter Mile Buffer Zone





Explanation

- Authorized Injection Wells
- Class V Injection Wells
- Production Wells
- State Boundary
-  Fort Bliss
-  Urban Areas
-  Counties
-  Proposed Exempt Area



0 5 10 20
Miles

GENERAL LOCATION MAP

FIGURE 1

